

REMARKS

Claims 7-12, all the claims pending in the application, stand rejected. Claims 7, 8 and 10-12 are amended.

Claim Rejections - 35 U.S.C. § 112

Claims 7-12 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. This rejection is traversed for at least the following reasons.

The Examiner asserts that there is no specific explanation as to how the original specification provides antecedent support for the invention as now claimed in several claims, specifically, claims 7, 8 and 12.

Claim 7

As to claim 7, the Examiner states that it is unclear how isotropic CLE is supported by the original specification. Examiner also finds no support for the power size of 5 micron, and notes that only 4 micron size is mentioned.

As to the first point, the description at page 13 of the original specification teaches that the coefficient of expansion is extremely small because the particles are elongated in the rolling direction. The term “isotropic” is defined in Webster’s Dictionary as the exhibition of properties with the same values when measured along the same axis.” The term was used to reflect a coefficient of expansion that substantially does not vary much. Applicant believes that the term is used properly, but is prepared to accept the Examiner’s suggestion if unacceptable.

As to the second point, Applicant has changed the recited powder size of 2-5 micrometer to 2-4 micrometer.

In sum, the present invention is featured in that composite molybdenum powder compact impregnated by melted copper is subjected to primary rolling in one direction and secondary rolling in another direction perpendicular to the one direction. This matter is supported by the description described on page 13, lines 17 to 22 of the specification.

Claim 8

As to claim 8, the Examiner states that it is unclear as to how the claimed alternating repeatedly feature is supported by the original specification in conjunction with other limitations in the claim.

First, the claim has been amended to delete the “alternating repeatedly” language.

Second, the claim has been amended to refer to each of the rolling steps, in order to provide proper grammatical and idiomatic text.

Third, as described on page 14, lines 14 to 25 of the specification, as a result of primary rolling and secondary rolling, the particles are formed into a flat shape. This flat elongated shape provides the advantages of the invention, as already described in the specification and arguments presented to the Examiner. This is now set forth in the claim.

Claim 12

With respect to claim 12, the Examiner again finds no support for the power size of 5 micron, and notes that only 4 micron size is mentioned. As with claim 7, Applicant has changed the recited powder size of 2-5 micrometer to 2-4 micrometer.

Applicant also has clarified that the brazing is to a metal on the ceramic (Example 1, pages 15 and 16)

Claims 7-12

As to all of the claims, the Examiner notes that there is no recitation of CLE values as specified in the original specification. The Examiner states that CLE values are recited in the specification and since no CLE values are recited in the claims, the claims are unsupported and lack a written description.

Applicant respectfully submits that the basic requirement of the patent law is that the disclosure should be sufficient to enable the making and using of the invention, not the claim. The claims are not required to teach how to implement the invention, they define the invention. Applicant has taught how to implement the invention with clear and specific teachings in the specification. Applicant also has claimed the invention in a manner broad enough to define the basic principles of the invention, those basic principles not requiring specific CLE values, as would be understood by one skilled in the art.

Claims 10 and 11 are rejected under 35 U.S.C. § 112, second paragraph, as failing to provide antecedent basis for several of the recited claim limitations, and as failing to clearly define terms describing the claimed invention. This rejection is traversed for at least the following reasons.

Claims 10 and 11

With respect to claims 10 and 11, the Examiner finds it unclear as to whether there is one or whether there are two steps. Applicant has amended the phrase “said step of primary and secondary rolling” and “said step of rolling” in claims 10 and 11, respectively, to read --said steps of primary rolling and secondary rolling--.

The Examiner also observes that it is unclear as to how to control copper/molybdenum amounts and reduction percentage. Applicant respectfully notes that in the present invention, in order to obtain a CLE , a layer ratio is controlled to 1:4:1 of Cu/ Cu-Mo composite/ Cu. This matter is described on page 17, lines 14 to 18, and on page 18, lines 9 and 22 of the application.

Moreover, in the present invention in order to obtain a CLE , a reduction is repeatedly carried out at a reduction ratio of 10% or less. This matter is described on Page 17, lines 14 to 18.

Taking the above into consideration, Applicant has amended claims 10 and 11 to better define the invention.

Conclusion

Applicant respectfully submits that by amending the claims in accordance with the above comments, all objections may now be withdrawn, and the claims defining the present invention should be allowed. The invention as presented by the Applicant in the presently pending claims is patentable over the prior art and is clearly and unambiguously defined. Support for the invention as a combination of limitations has been demonstrated.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment Under 37 C.F.R. § 1.116
U.S. Application No. 10/009,822

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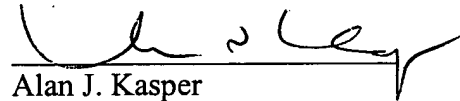
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Respectfully submitted,



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